



US Army Corps
of Engineers
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Environmental and Munitions Center of Expertise (EM CX)

Value Engineering at Superfund Fund Lead Sites

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Definition of Value Engineering

Value Engineering is a technique used to reduce non-essential procurement and program expenditures using systematic and creative methods without sacrificing the reliability, efficiency or original objectives of the project.

The Office of Solid Waste and Emergency Response Directive OSWER 9335.5-24, Value Engineering for Fund Financed Remedial Design and Remedial Action Projects was signed April 14, 2006. The VE initiative complements the other optimization methodologies developed in large part at the Environmental and Munitions Center of Expertise.

These programs include: Technical Project Planning which is used extensively to cost effectively plan data acquisition requirements over the life of a remedial action; and the EPA Remediation System Evaluation process used for optimizing operational remediation systems.

VE Study Criteria

- A **VE study** is required if the RA+LTRA (long term remedial action) cost will exceed \$25 million.
- A **VE screen** is required if the RA+LTRA cost is less than \$25 million followed by a VE study if potential value is identified.
- **To qualify for initial RA funding**, the EPA Region certifies to the RA Prioritization Panel that the RD for that project has undergone (or will undergo) the VE process.
- The OSWER guidance also requires the VE incentive clause be included in RAs and LTRAs with a value over \$100,000. The clause is also recommended for values less than \$100,000.
- VE studies will be led by an experienced VE facilitator, with an experienced team not

associated with the project;

- The Remedial Project Manager (RPM) participation in the VE process is needed.

What else should I know about Fund Lead VE studies?

- A typical VE study is often performed at or near the site concurrently with the site visit.
- A VE study performed with a facilitator takes approximately one week at a cost of \$35,000 - \$50,000.
- Generally the team completes the report within 30 days following the site visit/study.
- VE Studies are usually done after the completion of the concept design, but can be done any time between the draft ROD and Final Design Stage.

Examples of VE Studies

The VE process has been successfully applied at a number of SF Fund Lead Sites. The Army Corps of Engineers EM CX lead team has completed a number of VE Reports that are available on line.

Results of VE Studies

The 10 VE Studies completed to date have a projected remediation cost estimated over \$242 million. Savings identified by the VE Process amounted to nearly \$33 million. Not all projects have reported which suggestions were incorporated, but those reporting to date have incorporated more than 80 percent of the monetary savings identified (more than \$22 million).

For more information

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Visit the VE Web site at

http://www.environmental.usace.army.mil/value_engineering.htm.